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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,108	07/05/2007	Jean-Etienne Gaudreau	40128/04801	1750

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EXAMINER	
CHU, CHRIS H	
ART UNIT	**PAPER NUMBER**
2874	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,108	GAUDREAU, JEAN-ETIENNE	
	Examiner	Art Unit	
	CHRIS H. CHU	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,7-10,14-16 and 31* is/are rejected.

7)☒ Claim(s) *2,6,11-13 and 17-30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's Amendment filed April 20, 2009 has been fully considered and entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 14 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Murakami et al. (6,529,250).

Regarding claims 1 and 31, Murakami et al. discloses a method and a polarized display, comprising an intensity modulating matrix display (503 in Fig. 6), said intensity modulating matrix display having a front surface; and a polarizing matrix display panel (504) in front of said intensity modulating matrix display, said polarizing matrix display panel having a front surface; wherein the display is one of: a linear polarization display, each pixel of said polarizing matrix display panel being controllable and a rotation of a generated polarized light being varied over a range including 90 degrees and below;

and an elliptical polarization display, each pixel of said polarizing matrix display panel being controllable and a phase between a fast and a slow axes of a polarized light coming from a corresponding pixel of said intensity modulating matrix display in a range including 180 degrees and below in Fig. 6 and column 14, lines 7-50.

Regarding claim 14, Murakami et al. teaches the intensity modulating matrix display, and the polarizing matrix display integrated into one matrix display panel in Figs. 1 and 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-5, 7-10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al. (6,529,250).

Regarding claims 3 and 4, Murakami et al. teaches the claimed invention except for the polarizing matrix display panel comprising a half-length retarder and a quarter-length retarder sheet. However, using sets of retarder sheets with linear or elliptical polarization displays are well known in the art, and as such, one having ordinary skill in the art at the time of the invention would have found it obvious to use either a quarter-

length retarder sheet in front of a half-length retarder sheet for the purpose of controlling the polarization of light.

Regarding claim 5, Murakami et al. teaches the claimed invention except for the display looked at with passive 3-D glasses. However, 3-D glasses used with polarized display panels are well known in the art, and as such, one having ordinary skill in the art at the time of the invention would have found it obvious to do so for the purpose of viewing an image where different polarizations are sent to the right and left eyes.

Regarding claims 7-10, Murakami et al. teaches the claimed invention except for the intensity modulating matrix display and the polarizing matrix display panel comprising microlens arrays, gradient index lenses, front microballs diffuser, microprisms and grating optical elements. However, all of these components are well known in the art of optical signal transmission, and as such, one having ordinary skill in the art at the time of the invention would have found it obvious to use any of the claimed components in conjunction with either of the displays for the purpose of further processing of the signal.

Regarding claim 15, Murakami et al. teaches the integrated matrix display panel to comprise two active glass substrates and a thin sheet of liquid crystals between said substrates, but does not specifically state the sheet of liquid crystals comprising an IPO conductive layer and a color filter. However, IPO conductive layers and color filters are well known in the art of liquid crystals, and as such, one having ordinary skill in the art at the time of the invention would have found it obvious to use an IPO conductive layer

and a color filter in the sheet of liquid crystals taught by Murakami et al. for the purpose of further processing of the light as it passes through the liquid crystals.

Regarding claim 16, Murakami et al. teaches the claimed invention except for the active substrates about 7 mm thick and the thin sheet less than about 2 mm. However, it would have been obvious for one having ordinary skill in the art at the time the invention was made to have the layers have such thicknesses, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Allowable Subject Matter

Claims 2, 6, 11-13 and 17-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art cited on attached form PTO-892 is the most relevant prior art known, however, the invention of these claims distinguishes over the prior art of record because none of the references either alone or in combination disclose or render obvious what is defined in these claims.

Regarding claim 2, the prior art of record fails to teach or fairly suggest the modulating matrix display comprising a backlight panel, a first polarizer, a first matrix

display panel and a second polarizer, with the polarizing matrix display panel comprising a second matrix display panel. Claim 25 depends from claim 2.

Regarding claims 6, 17 and 27-30, the prior art of record fails to teach or fairly suggest the intensity modulating matrix display and the polarizing matrix display both comprising respective LCD panels. Murakami et al. teaches the intensity modulating matrix display comprised of multiple layers of drawn polymers stacked together, but not liquid crystals.

Regarding claim 11, the prior art of record fails to teach or fairly suggest an image replicator provided between the intensity modulating matrix display and the polarizing matrix display panel. Claims 12 and 13 depend from claim 11.

Regarding claim 18, the prior art of record fails to teach or fairly suggest the polarized display converting each sub-pixel into modular and angular signals using the claimed equations. Claims 19-24 and 26 depend from claim 18.

Response to Arguments

Applicant's arguments with respect to the rejection of claims 1 and 31 have been considered but are not persuasive.

In page 9 of the remarks, applicant asserts that because the film 503 of Murakami is composed of layers of polymer placed upon each other, that it is not a matrix display. However, even though the film is not distinctly divided into smaller units, it is composed of a plurality of portions each corresponding to the matrix of pixels of the

liquid crystal layer 504. As such, it can still be considered a matrix display. Further, the film 503 is intensity modulating since it reflects light having an s-polarization.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris H. Chu whose telephone number is 571-272-8655. The examiner can normally be reached on 8:30 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Uyen-Chau Le can be reached on 571-272-2397. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general or clerical nature should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562.

/UYEN-CHAU N. LE/
Supervisory Patent Examiner, Art Unit 2874

Chris H. Chu
/Chris Chu/
Patent Examiner
August 3, 2009